Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (previously canceled)

2. (currently amended): The method as recited in claim 37, wherein said ~~step of applying said film of~~ sacrificial ~~material~~film ~~comprises applying said film to~~ an effective thickness for removal of said contaminant particles.

3. (currently amended): The method as recited in claim 37, wherein said contaminant particles ~~having~~ have a size distribution ranging from a smallest diameter to a largest diameter, and wherein said ~~step of applying said film of~~ sacrificial ~~material comprises applying said~~ film ~~to~~ comprises a thickness between one-tenth of said smallest diameter and twice said largest diameter.

4. (currently amended): The method as recited in claim 37, wherein said ~~step of applying said~~ sacrificial film ~~of sacrificial material is performed~~ formed by spraying a solution onto said ~~wafer~~substrate and drying a solvent in said solution to form said solid sacrificial film.

5. (currently amended): The method as recited in claim 37, wherein said ~~step of applying said~~ sacrificial film ~~of sacrificial material is performed~~ formed by spinning a solution onto said ~~wafer~~ substrate and drying a solvent in said solution to form said solid sacrificial film.

6. (canceled)

7. (canceled)

8. (currently amended): The method as recited in claim 37, wherein said ~~step of applying said film of~~ sacrificial ~~material~~ film comprises ~~applying a quantity of~~ nitrocellulose.

9. (currently amended): The method as recited in claim 37, wherein said ~~step of applying~~forming ~~of~~ said sacrificial film ~~of sacrificial material~~ comprises applying a solution of soluble nitrocellulose in a mixture of alcohol and ether.

10. (currently amended): The method as recited in claim 37, wherein said ~~step of applying said film of~~ sacrificial ~~material~~ film ~~comprises applying a quantity of~~ pyroxylin.

11. (currently amended): The method as recited in claim 37, wherein said ~~step of applying said film of~~ sacrificial ~~material~~ film ~~comprises applying a quantity of~~ collodion.

12. (currently amended): The method as recited in claim 37, wherein said ~~exposing~~ transferring of energy ~~step~~ is performed by exposing said sacrificial film to light ~~from an excimer laser~~ having an effective wavelength for removing said sacrificial film.

13. (currently amended): The method as recited in claim 12, wherein said sacrificial film ~~is~~ comprises ~~collodion and said effective wavelength is between about 150 and about 400 nanometers.

14. (currently amended): The method as recited in claim 12, wherein said light ~~from said excimer laser~~ irradiate~~d~~s said ~~wafer~~ substrate ~~at less than about 100 millijoules per square centimeter.

15. (currently amended): The method as recited in claim 37, further comprising ~~the step of~~ providing a flow of vapor across said ~~wafer~~ substrate -while performing said ~~exposing step~~ transferring of energy.

16. (previously amended): The method as recited in claim 15, wherein said flow of vapor is laminar flow.

17. (currently amended): The method as recited in claim 37, further comprising ~~the step of~~ providing a flow of an inert gas across said ~~wafer~~ substrate- while performing said ~~exposing step~~ transferring of energy.

18. (previously amended): The method as recited in claim 17, wherein said inert gas is selected from the list consisting of nitrogen and argon.

19. (previously amended): The method as recited in claim 17,wherein said flow of an inert gas is laminar flow.

20-28 (previously canceled)

29. (currently amended) A method for removing contaminant particles from a surface of a ~~substrate~~ wafer, comprising the steps of:

transferring said wafer among a plurality of processing stations under computer control in a predetermined sequence starting at an input station and ending at an output station;

identifying and characterizing contaminant particles on said wafer surface at at least one of said processing stations and creating a record of said contaminant particles data for said wafer at said at least one processing station;

transferring said contaminant particles data to a wafer cleaning station;

transferring said wafer to said wafer cleaning station;

~~a) applying~~ forming a solid film of sacrificial material ~~to~~ on ~~the~~ said wafer surface;

performing cleaning of said wafer, wherein said wafer cleaning station is adapted to selectively shine light at said contaminant particles based on said contaminant particles data and thereby remove said sacrificial film and said contaminant particles; and

transferring of cleaned wafers to an output station.

~~b) locating said particles on said surface and recording coordinates of each particle;~~ and

~~c) shining light at said coordinates to selectively remove particles w hose coordinates were recorded.~~

30. (currently amended): The method as recited in claim 29, further comprising ~~the step of~~ providing a flow of an inert gas across said wafer surface while performing said ~~shining step (c)~~cleaning of said wafer.

31. (currently amended): The method as recited in claim 29, further comprising ~~the step of~~ comparing said ~~coordinates recorded in locating step (b)~~ contaminant particles data with device design data for identifying contaminant particles causing defects critical to device operation for devices manufactured upon said wafer.

32. (currently amended): The method as recited in claim 31 wherein said light is selectively applied only at said ~~coordinates of said defects~~contaminant particles critical to device operation and expected to affect device yield.

33. (previously canceled)

34. (withdrawn)

35. (previously canceled)

36. (previously canceled)

37. (currently amended) : A method of processing a substrate comprising ~~the steps of~~:

a) providing a substrate comprising patterns for electronic circuitry and contaminant particles on a surface;

b) ~~providing~~ forming ~~a liquid film on the substrate and drying solvent in the liquid to provide a dried unpatterned~~ a solid sacrificial film on ~~the substrate~~said surface;

c) transferring energy to physically remove said ~~dried unpatterned~~ sacrificial film from ~~the substrate~~said surface, wherein removing said sacrificial film facilitates ~~cleaning~~ removing said contaminant particles from ~~the substrate~~said surface.

38. (currently amended): The method as recited in claim 37, wherein said ~~dried material~~ sacrificial film comprises an organic material.

39. (currently amended): The method as recited in claim 38, wherein said ~~dried organic~~ sacrificial film ~~material~~ comprises resist ~~or collodion~~.

40. (currently amended): The method as recited in claim ~~37~~12, wherein said ~~transferring energy step (c) comprises irradiating said film with~~ light comprises a laser.

41. (currently amended): The method as recited in claim 40, wherein said ~~irradiating said film with light step comprises shining a~~ laser ~~on said film~~comprises an excimer laser.

42. (currently amended): The method as recited in claim ~~41~~40, wherein said laser comprises a pulsed UV laser.

43. (currently amended): The method as recited in claim 37, further comprising ~~the step of~~ measuring said contaminant particles on ~~the substrate~~ said surface before ~~said step (b) of applying~~ forming said sacrificial film.

44. (currently amended): The method as recited in claim 43, wherein said ~~measurement step (a)~~ measuring of said contaminant particles on said surface is performed by an advanced patterned wafer inspection system with an automatic defect classification program~~comprises computer software defect classification~~.

45. (cancel)

46. (currently amended): The method as recited in claim 43, wherein said ~~measurement~~ measuring ~~provides~~ comprises measuring of type, size, composition, density, ~~or~~ and position coordinates of said contaminant particles on ~~the substrate~~said surface.

47. (currently amended): The method as recited in claim 46, wherein said measuring of composition ~~measurement~~ comprises analyzing exhaust gas after ~~cleaning~~ removing said contaminant particles from ~~the substrate~~said surface.

48. (currently amended): The method as recited in claim 46, wherein said measuring of composition ~~measurement~~ comprises performing x-ray dispersive spectroscopy of said contaminant particles on ~~the substrate~~said surface.

49. (currently amended): The method as recited in claim 43, further comprising ~~the step of~~ selecting a parameter of said ~~providing step (b)~~forming a sacrificial film or of said transferring of energy ~~step (c)~~ based on data from said measuring of said contaminant particles ~~on the substrate step~~.

50. (currently amended): The method as recited in claim 49, wherein said selecting a parameter ~~step~~ comprises selecting a parameter based on type ~~of particle~~ or composition of said contaminant particles.

51. (currently amended): The method as recited in claim 50, wherein said selecting a

parameter ~~step~~ comprises selecting ~~a wavelength~~ said energy to be transferred ~~that is~~ to be higher than that required to break bonds.

52. (currently amended): The method as recited in claim 43, wherein said ~~measurement step~~ measuring comprises providing a map of said contaminant particles on ~~the substrate~~ said surface.

53. (currently amended): The method as recited in claim 43, wherein said transferring of energy ~~step (c)~~ comprises aiming an energy beam at said position coordinates ~~locations~~ found ~~in~~ by said measuring of said contaminant particles~~step~~.

54. (currently amended): The method as recited in claim 53, wherein said energy beam comprises a laser beam and wherein said method further comprises ~~the step of~~ selecting a contaminant-specific recipe ~~of~~ for said laser ~~cleaning~~induced removing of said contaminant particles ~~step~~ based on data from said measuring of said contaminant particles ~~on the substrate step~~.

55. (currently amended): The method as recited in claim 54, wherein said method further comprises ~~the step of setting said laser with~~ selecting a generic recipe for laser induced ~~cleaning~~ removing of other major defects found in said measuring ~~step~~.

56. (currently amended): The method as recited in claim 54, wherein said contaminant-specific recipe is selected for each specific type of said contaminant particle characterized in said measuring ~~step~~ and wherein said ~~selective~~ laser ~~cleaning~~ beam is directed to ~~locations~~ position coordinates on ~~t~~said surface~~he wafer~~ where said specific contaminant particles are actually located as determined in said measuring ~~step~~.

57. (currently amended): The method as recited in claim 43, further comprising ~~the step of~~ storing data generated by said ~~measurement~~ measuring in a data record for said surface.

58. (currently amended): The method as recited in claim 43, further comprising measuring ~~the step of providing a second measurement of~~ remaining contaminant particles on ~~the substrate~~ said surface after said ~~cleaning step (c).~~transferring of energy

59. (currently amended): The method as recited in claim 58, further comprising repeating said transferring of energy to remove said remaining contaminant particles.~~the step of providing a second cleaning step if particles are found in said second measurement step~~.

60. (currently amended): The method as recited in claim 37, wherein ~~in~~ said ~~providing a substrate step (a) said~~ substrate is provided after a step in a process flow of fabricating the electronic circuitry on ~~the substrate~~ said surface but before other fabrication steps are complete.

61. (currently amended): The method as recited in claim 37, wherein said transferring of energy ~~step (c)~~ comprises an area cleaning.

62. (currently amended): The method as recited in claim 61, wherein said area cleaning is ~~proved~~ performed by providing a laser beam and scanning said laser beam or by scanning said substrate with respect to said laser beam.

63. (currently amended): The method as recited in claim 37, wherein the substrate is selected from a group consisting ~~comprises~~ of a semiconductor wafer ~~or~~ and a mask.

64. (withdrawn)

65. (new): A method for removing contaminant particles from a surface of a wafer comprising:

transferring said wafer among a plurality of processing stations under computer control in a predetermined sequence starting at an input station and ending at an output station;

identifying and characterizing contaminant particles on said wafer surface at at least one of said processing stations and creating a record of said contaminant particles data for said wafer at said at least one processing station, wherein said identifying and characterizing of said contaminant particles on said wafer is performed by an advanced patterned wafer inspection system with an automatic defect classification program;

transferring said contaminant particles data to a wafer cleaning station;

transferring said wafer to said wafer cleaning station;

performing cleaning of said wafer, wherein said wafer cleaning station is adapted to selectively shine light at said contaminant particles based on said contaminant particles data; and

transferring of cleaned wafer to an output station.

66. (new): The method of claim 65 wherein said light comprises a laser and said cleaning comprises laser cleaning.

67. (new): The method of claim 65 wherein said laser is selected from a group consisting of pulsed UV lasers and excimer lasers.

68. (new): The method of claim 65 wherein said contaminant particles data comprise position coordinates, type, composition, density and size of each particle contaminant on said wafer.

69. The method of claim 65 wherein identifying and characterizing of said contaminant particles on said wafer is performed by equipment selected from a group consisting of a scanning electron microscope, an optical microscope, and an atomic force microscope.

70. The method of claim 66 wherein said laser cleaning of said wafer comprises laser

cleaning based on generic recipes.

71. The method of claim 66 wherein said laser cleaning of said wafer comprises laser cleaning based on contaminant-specific recipes.